ABSTRACT OF THE DISCLOSURE

DYNAMIC QOS FOR INTEGRATED VOICE AND DATA CDMA/1XRTT NETWORKS

A method, system and program product which improves the QoS and GoS of voice and data traffic on an integrated communications network. An RF spectrum allocation application/algorithm provides initial allocation of a percentage of available spectral resources to current voice and data traffic. Each allocated percentage is bounded by a sliding window, which adjusts its location based on the changing need for the resources. Thus, a voice sliding window dynamically adjusts its location to provide additional spectral resources to voice traffic when the voice traffic increases and provides less spectral resources when the voice traffic decreases. Likewise, a data sliding window dynamically adjusts its location to provide additional spectral resources to data traffic when the data traffic increases and provides less spectral resources when the data traffic decreases. The size of each window is determined by input parameters. When heavy voice and/or data traffic is present, the maximum available spectral resources are utilized and shared between both traffic types based on the RF spectrum allocation algorithm. Whenever an overlap in the windows occurs, the algorithm dynamically determines which of the traffic types to allocate the remaining spectral resources based on a number of factors, including the cost/financial factors and QoS and GoS calculations.